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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,729	12/14/2001	Xiaom Wang	83067SMR	5473

7590

03/22/2005

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EXAMINER
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SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/017,729

Applicant(s)

WANG ET AL.

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-14 and 17-27 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,4-14 and 17-27 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 12/27/04.

The new grounds of rejection as set forth below are necessitated by applicants' amendment and thus, the following action is final.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 11-12 and 24-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In response to the examiner's 35 USC 112, 2<sup>nd</sup> paragraph rejection set forth in paragraph 3 of the office action mailed 9/23/04 indicating that the scope of claims 11-12 and 24-25 was confusing given that it was not clear what type of molecular weight was referred to in these claims – weight average, number average, etc., applicants amended claims 11-12 and 24-25 to each recite that the average molecular weight was “number average molecular weight”.

While examiner appreciates applicants response to the rejection, it is the examiner's position that the phrase “number average molecular weight” fails to satisfy the written

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description requirement under the cited statute given that does not appear to be a written description requirement of the phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. Applicant has not pointed to any portion of the specification, and examiner has not found any support for this phraseology in the specification as originally filed.

**Claim Rejections - 35 USC § 102**

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 4-6, 9-10, 13-14, 17-23, and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Mathauer et al. (U.S. 6,727,318).

The rejection is adequately set forth in paragraph 5 of the office action mailed 9/23/04 and is incorporated here by reference.

**Claim Rejections - 35 USC § 103**

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathauer et al. (U.S. 6,727,318) in view of Moore et al. (U.S. 4,698,651).

The rejection is adequately set forth in paragraph 7 of the office action mailed 9/23/04 and is incorporated here by reference.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathauer et al. (U.S. 6,727,318) in view of Evans et al. (U.S. 6,001,161).

The rejection is adequately set forth in paragraph 8 of the office action mailed 9/23/04 and is incorporated here by reference.

9. Claims 11-12 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathauer et al. (U.S. 6,727,318) in view of Ishizuka et al. (U.S. 2001/0023267).

The rejection is adequately set forth in paragraph 9 of the office action mailed 9/23/04 and is incorporated here by reference.

#### **Response to Arguments**

10. Applicants arguments filed 12/27/04 have been fully considered but they are not persuasive.

Specifically, applicants argue that Mathauer et al. is not a relevant reference against the present claims given that Mathauer et al. require composite polymer dye particles wherein the polymer is water-soluble, i.e. polymer requires more than 50% water-soluble monomer, while the present claims now require composite polymer dye particles wherein the polymer is water-insoluble.

However, it is noted that the polymer of Mathauer et al. is obtained from 50-99.5% monomer A, 0.5-50% monomer B, 0-30% monomer C, and up to 20% monomer D (col.25, lines 45-57). Given the disclosed amounts, it is clear that monomers C and D are not required. Further, monomer A includes monomers such as styrene and (meth)acrylates (col.3, lines 27-50) while monomer B is monomer having "low water stability" (col.4, lines 57-58). Thus, it does not appear that the polymer of Mathauer et al. is water-soluble or requires at least 50% water-soluble monomer. It is not clear where Mathauer et al. disclose that the polymer comprises at least 50% water-soluble monomer, preferably at least 90% water-soluble monomer, as argued by applicants. Clarification is requested.

It is noted that up to 30% monomer A can be replaced with monomers A' which are monomers of increased water-solubility. However, these monomers are optional, i.e. up to 30%, and even if utilized would not be required to be present in amount of greater than 50% of total monomers utilized. Thus, the polymer of Mathauer et al. would still possess some degree of water-insolubility.

It is noted that col.29, lines 28-30 of Mathauer et al. do disclose the use of water-soluble polymer PW, however, the use of such polymer is not required and even if utilized, it is utilized in addition to the composite polymer-dye particles disclosed by Mathauer et al.

In light of the above, it is the examiner's position that Mathauer et al. do disclose water-insoluble polymer as presently claimed and thus, Mathauer et al. remains a relevant reference against the present claims.

Applicants also argue that Moore et al. is not a relevant reference against the present claims given that Moore et al. is not drawn to ink jet inks.

It is agreed that there is no disclosure in Moore et al. of ink jet inks. However, applicants' are reminded that according to MPEP 2141.01 (a), a reference may be relied on as a basis for rejection of an applicants' invention if it is "reasonably pertinent to the particular problem with which the inventor is concerned." A reasonably pertinent reference is further described as one which "even though it maybe in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." Moore et al. is, therefore, a reasonably pertinent reference, because it teaches that the use of arylazoisothiazole dye dispersed in polymer improves light stability and hue, which is a function especially pertinent to the invention at hand.

Applicants argue that Evans et al. discloses water-soluble dye not water-insoluble dye as presently claimed.

However, there appears to be no disclosure in Evans et al. that the dye is water-soluble. Further, based on the choice of each substituent of the dye of Evans et al., it appears that the dye would, in some embodiments, be water-insoluble.

Applicants also argue that Ishizuka et al. is not a relevant reference against the present claims given that Ishizuka et al. do not disclose the use of co-stabilizers and use dye loaded polymer rather than polymers that are polymerized in the presence of dye.

However, note that while Ishizuka et al. do not disclose all the features of the present claimed invention, Ishizuka et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re*

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*Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, the molecular weight of colored polymers used in inks, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho  
Primary Examiner  
Art Unit 1714,

CS  
3/17/05